A method is disclosed for testing a jet aircraft engine at a time when an actual wind direction differs from a prevailing wind direction. The method is conducted in a ground runup enclosure (GRE), typically comprising a rear wall, a pair of side walls attached to the rear walls and an open front side opposite the rear wall, the front side facing in a prevailing wind direction. The method comprises moving the aircraft into the GRE, aligning the aircraft so that the air inlet of its engine faces the actual wind direction, and running the engine up to full power to test its condition. The method of the present invention permits the GRE to be used under a variety of unfavourable wind conditions, thereby improving its usability.